The amount of protein leakage from colon cancers is thought to be less than occurs with other colon diseases [1], and cases of protein-losing colon cancer have rarely been reported. We encountered a case of protein-losing colon cancer associated with severe diarrhea and hypoproteinemia in an 85-year-old woman. Computed tomography showed a large tumor in the ascending colon and massive ascites (Figure 1). Total colonoscopy revealed a giant nodular tumor with a surface that was whitish-yellow in color in the ascending colon (Figure 2). The patient was apparently not considered suitable for surgery because of carcinomatosa, but abdominal paracentesis was not suggestive of malignancy. We suspected that the hypoproteinemia was caused by protein leakage from the colonic lesion. The fecal alpha_1-antitrypsin clearance was measured and found to be remarkably high at 232 ml/day (normal range < 20 ml/day). Human serum albumin scintigraphy revealed marked albumin leakage from the lesion (Figure 3).

A right hemicolectomy was performed and the pathological diagnosis was poorly differentiated adenocarcinoma with marked dilatation of the lymphatic ducts (Figure 4). It has been suggested that the pressure on the lymphatic ducts on the tumor surface is raised in such cases, leading to loss of protein [2]. After the operation, the patient’s alpha_1-antitrypsin clearance returned to normal levels and human serum albumin scintigraphy did not demonstrate any sites of albumin loss. Her diarrhea and ascites resolved (see Figure 5) and her condition improved dramatically, and at follow-up at 14 months she was in good health.

Alpha_1-antitrypsin clearance [1,3,4] and human serum albumin scintigraphy [5] proved very useful for establishing the diagnosis of protein-losing colon cancer in this case, and these investigations were a turning point in the diagnosis of protein leakage from the cancer. There could be a few treatable cases of protein-losing colon cancer among the many patients with colon cancer and ascites. Once the diagnosis of protein-losing colon cancer is established, resection of the tumor should lead to clinical improvement, so it is important to suspect protein-losing colon cancer and to diagnose these tumors appropriately.
Y. Nomura, M. Abe, K. Miyawaki, D. Kenemitsu, K. Tomikashi
Digestive Disease Center, Kohoku General Hospital, Kinomoto, Japan.

References


Corresponding Author

M. Abe, M.D.
Digestive Disease Center
Kohoku General Hospital
1221 Kuroda
Kinomoto
Ika
Shiga
Japan
Fax: +81-749-82-4877
E-mail: mabe828@ybb.ne.jp